



EFFECTIVENESS OF BILLIG'S EXERCISE ON DYSMENORRHEA AMONG EARLY ADOLESCENT GIRLS IN SELECTED SCHOOLS AT PUDUCHERRY

Nursing

Subakeerthi. V* Associate Professor, Community Health Nursing, Kasturba Gandhi Nursing College, SBV Puducherry. *Corresponding Author

Renuka K Principal, Kasturba Gandhi Nursing College, SBV Puducherry.

ABSTRACT

Background: Dysmenorrhea is one of the common problems experienced by many Early Adolescent Girls. This is not caused by an underlying medical condition. However, Billig's exercise helps to improve physical strength and stamina, blood circulation, reduces pain, reduces psychological stress, and promotes normal menstruation among Early Adolescent Girls. The aim of the study was to assess the effectiveness of billig's exercise on dysmenorrhea among early adolescent girls in selected school at Puducherry.

Materials And Methods: The study adopted Quantitative Research Approach by using pre-experimental (one group pre-test and post-test) design, 50 Early Adolescent Girls was selected by using purposive sampling technique and the data were collected by using Dysmenorrhea scale.

Results: The present study depicts that pre-test and post-test mean Dysmenorrhea was 6.36 and 2.02 respectively. The improvement was statistically tested by paired t-test which was found to be highly statistically significant at p value <0.001 level. It indicates that Billing's Exercise was highly effective to reduce the Dysmenorrhea among Early Adolescent Girls.

Conclusion: As Billig's Exercise does not show any side effect which is also highly effective to reduce the Dysmenorrhea and easily can do and it is very beneficial for all Early Adolescent Girls.

KEYWORDS

Effectiveness, Billing's Exercise, Dysmenorrhea, Early Adolescent Girls.

INTRODUCTION

Adolescent health, often known as youth health, refers to a variety of ways to preventing, detecting, and treating problems that affect young people's health and well-being. The phrases adolescent and young people, as well as adolescent health and youth health, are frequently interchanged. Young people's health is frequently challenging and necessitates a balanced approach¹. Early adolescence is defined as a period of growth and development of secondary sexual characteristics between the ages of 12 and 14. It is a time of physical, cognitive, and psychological growth. Menstruation is one of the most significant changes that occurs during adolescence, and menarche may be the most significant².

Menstruation is a natural physiological process that occurs once a month in women of reproductive age due to endometrial tissue destruction. Menstruation is one of the most significant changes. The start of menstruation is known as menarche. Menstruation begins between the ages of 11 and 15, with the average age being 13 years. Menarche is a significant turning point in a woman's life³. The endometrium prepares to nourish a foetus with each menstrual cycle. If fertilisation does not take place, the endometrium is lost during the monthly cycle. An irregularity in this cycle may develop in some situations, indicating menstrual diseases such as premenstrual syndrome, amenorrhea, Dysmenorrhea, and menorrhagia⁴.

Dysmenorrhea is a prevalent condition among early adolescent girls. It is a menstrual disorder marked by severe and frequent period cramps and agony. Dysmenorrhea is classified as primary or secondary⁵. Adolescents with primary dysmenorrhea are highly common. It affects 90 percent of adolescent females and more than half of menstrual women, with 10 to 20% of them rating their pain as severe and distressing⁶.

Primary Dysmenorrhea is a type of dysmenorrhea that causes pain and cramps in the lower back and upper thighs. There is no underlying medical ailment causing this condition. Premenstrual syndrome (PMS) and primary Dysmenorrhea are the most frequent menstrual illnesses that negatively impact women's functioning and quality of life⁷. Billig's exercise helps Early Adolescent Girls improve blood circulation, physical strength and endurance, promote normal menstruation, relieve discomfort and lessen psychological stress⁸.

However, the advantages of Billig's exercise in the reduction level of Dysmenorrhea, the researcher felt need for assessing the effectiveness of Billig's exercise in reduction level of Dysmenorrhea by using modified NRS (Numerical Rating Scale).

OBJECTIVES:

- To assess the level of Dysmenorrhea among Early Adolescent Girls.

- To determine the Effectiveness of Billig's Exercise on Dysmenorrhea among Early Adolescent Girls.
- To associate the level of Dysmenorrhea in Early Adolescent Girls with their selected Demographic variables.

HYPOTHESES

- H1: Significant difference exists between the level of Dysmenorrhea among Early Adolescent Girls who had undergone Billig's exercise.
- H2: Significant association exists between the level of Dysmenorrhea in Early Adolescent Girls with their selected demographic variables.

METHODOLOGY:

The study adopted Quantitative Research Approach by using pre-experimental (one group pre-test and post-test) design, 50 Early Adolescent Girls was selected by using purposive sampling technique and the data were collected by using Dysmenorrhea scale. The Institutional Human Ethical Clearance was obtained. The informed consent from the samples and caregivers were obtained. The Dysmenorrhea was assessed by using the Numerical Rating Scale respectively in pre-test and post-test along with Billig's exercise as intervention was taught to Early Adolescent Girls.

The tools was developed based on the extensive literature review and opinion from the experts in the field of Obstetrics and Gynecology nursing and child health nursing. The tool consists of two parts. Part one Demographic variables and menstrual variables which include age, religion, educational status, duration of menstruation, flow of menstruation, age at menarche, nature and location of menstrual pain, associated symptoms during menstruation, inference of the study due to menstruation. Part two includes Numerical rating scale to assess the level of Dysmenorrhea among Early Adolescent Girls. Researchers were assessed the pretest level of Dysmenorrhea on the 1st and 2nd day of menstrual period among Early Adolescent Girls. Intervention Billig's Exercise will be given to Early Adolescent Girls for 5-6 times for 10-15 sec. Posttest will be done at the same day for same person.

Statistical Analysis

The data collected was analyzed by using Descriptive statistics such as frequency, percentage, mean and Standard deviation was used for demographic variables of Dysmenorrhea among early adolescent girls and inferential statistics like paired t test and chi square and correlational coefficient was used to associate the Billig's exercise of Dysmenorrhea among early adolescent girls with their selected demography variables.

RESULTS

The following results were obtained from the study. Regarding

distribution of demographic variables of Early Adolescent Girls

Table 1:

S.no	Demographic Variables	Frequency	Percentage
		N	%
1.	AGE OF THE STUDENT		
	a) 11years	0	0
	b) 12years	20	40
	c) 13years	20	40
	d) 14years	10	20
2.	EDUCATION		
	6 th Standard	3	6
	7 th standard	14	28
	8 th standard	14	28
	9 th standard	19	38
3.	AGE AT MENARCHE		
	a) 11years	20	40
	b) 12years	21	42
	c) 13years	9	18
	d) 14years	0	0
4.	DURATION OF MENSTRUATION		
	a) 2days	0	0
	b) 3days	7	14
	c) 4days	20	40
	d) >5 days	23	46
5.	FREQUENCY OF MENSTRUATION		
	a) Once in 21days	10	20
	b) Once in 28days	35	70
	c) Once in 35days	4	8
	d) Once in 45days	1	2
6.	DURATION OF MENSTRUAL PAIN		
	a) <12hrs	18	36
	b) 24hrs	18	36
	c) >24hrs	14	28
7.	FLOW OF MENSTRUATION		
	a) Scanty	6	12
	b) Moderate	32	64
	c) Heavy	12	24
8.	NATURE OF MENSTRUAL PAIN		
	a) Pricking	15	30
	b) Throbbing	20	40
	c) Cramping	12	24
	d) Squeezing	3	6
9.	LOCATION OF MENSTRUAL PAIN		
	a) Lower abdomen	13	26
	b) Back and thighs	10	20
	c) Pubic area	5	10
	d) General body pain	22	44
10.	ASSOCIATED SYMPTOMS DURING MENSTRUATION		
	a) Nausea	14	28
	b) Vomiting	14	28
	c) Diarrhea	8	16
	d) Giddiness	14	22
11.	PSYCHOLOGICAL DISTURBANCES (ANGER OF IRRITATION) DURING MENSTRUATION		
	a) Never	4	8
	b) Occasionally	27	54
	c) Frequently	16	32
	d) Always	3	6
12.	INFERENCE OF STUDY DUE TO MENSTRUATION		
	a) Sometimes absent the school	16	32
	b) Regularly absent the schools	9	18
	c) Absent on the first day of their period	19	38
	d) Absent on the first 2 days of their period	6	12
13.	ALTERNATIVE MODALITIES FOR DYSMENORRHOEA		
	a) Yes	7	14
	b) No	43	86

Table 1 depicts that frequency and distribution of the demographic variables of Early Adolescent Girls with regard to age 40 % (20) were 12 years, 40 % (20) were 13 years, 20% (10) were 14 years. In

education most of sample 38% (19) 9th standard, 28% (14) 7th standard, 28% (14) 8th standard, 6% (3) 6th standard. In religion 100% (50) were Hindu. Age at menarche 42% (21) were 12 years, 40% (20) 11 years, 18% (9) 13 years. Duration of menstruation 70% (35) were once in 28 days, 20% (10) once in 21 days, 8% (4) once in 35 days, 2% (1) once in 45 days. Duration of menstruation pain 36% (18) were <12 hrs. 36% (18) 24hrs, 28% (14) >24hrs. Flow of menstruation 64% (32) moderate, 24% (12) heavy, 12% (6) scanty. Nature of menstrual pain 40% (20) throbbing, 30% (15) pricking, 24% (12) cramping, 8% (4) squeezing. Location of menstrual pain 44% (22) General body pain, 26% (13) Lower abdomen, 20% (10) Back and thighs, 10% (5) Pubic area. Associated symptoms during menstruation 28% (14) Nausea, 28% (14) Vomiting, 28% (14) Giddiness, 16% (8) Diarrhea. Psychological disturbances (anger or irritation) during menstruation 54% (27) occasionally, 32% (16) frequently, 8% (4) Never, 6% (3) Always. Inference if study due to menstruation 38% (19) Absent on the first day of their period, 32% (16) Sometimes absent the schools, 18% (9) Regularly absent the schools 12% (6) Absent on the first 2 days of their period. Alternative modalities for Dysmenorrhea 86% (43) no, 14 % (7) yes.

The first objective of the study was to assess the level of Dysmenorrhea among Early Adolescent Girls. The finding revealed that, among 50 samples of Early Adolescent Girls In pre-test among 28(56%) were having Moderate Pain, 21(42%) were having Severe Pain.

The second objective was to determine the Effectiveness of Billig's Exercise on Dysmenorrhoea among Early Adolescent Girls. The study revealed that early adolescent girls in selected schools had reduced dysmenorrhea on post-test. In post-test 48(96%) were having Mild Pain and 1 (2%) were having no Pain.

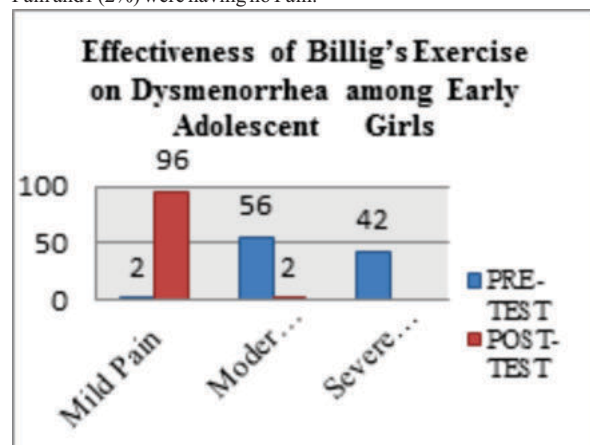


Figure 1 Depicts The Effectiveness Of Billig's Exercise On Dysmenorrhoea Among Early Adolescent Girls.

Table 2 depicts that, the numerical rating scale score of Early adolescent girls in the pre-test and post-test mean Dysmenorrhea was 6.36 and 2.02 respectively. The improvement was statistically tested by paired t- test which was found to be highly statistically significant at p value <0.001 level. It indicates that Billing's Exercise was highly effective to reduce the Dysmenorrhea among Early Adolescent Girls.

Table 2:

DYSMENORRHOEA	MEAN	MEDIAN	STANDARD DEVIATION	WILCOXON TEST	P-TEST
PRE TEST	6.36	6	1.97	-6.194	<0.001***
POST TEST	2.02	2	0.89		

The third objective was to associate the level of Dysmenorrhea in Early Adolescent Girls with their selected Demographic variables. The study reveals that there is association between the Dysmenorrhea with the selected the demographic variable flow of menstruation and location of menstrual pain is having significant association with the level of dysmenorrhea. The demographic variable age, education, age of menarche, duration of menstruation, frequency of menstruation, duration of menstrual pain, nature of menstrual pain, associated symptoms during menstruation, psychological disturbances during menstruation, inference of study due to menstruation, alternative

modalities for Dysmenorrhea did not have any significant association with level of Dysmenorrhea on early adolescent girls.

DISCUSSION

The study finding revealed that, among 50 samples of Early Adolescent Girls In pre-test among 28(56%) were having Moderate Pain, 21(42%) were having Severe Pain. In post-test 48(96%) were having Mild Pain and 1 (2%) were having no Pain.

The second objective of the pre-test and post-test mean Dysmenorrhea was 6.36 and 2.02 respectively. The improvement was statistically tested by paired t- test which was found to be highly statistically significant at p value <0.001 level. It indicates that Billig's Exercise was highly effective to reduce the Dysmenorrhea among Early Adolescent Girls.

The third objective of the present study finding reveals that demographic variables such as flow of menstruation and location of menstrual pain are having significant association with the dysmenorrhea and other demographic variables had not shown statistically significant association with level of Dysmenorrhea on early adolescent girls.

This study has the implication which are of primary concerns in various fields of nursing such as practices, education, administration and research. In the area of nursing practice, the nurse working in school setting can motivate the students about Billig's exercise which is effective easy and can do as in the integral of their nursing profession. In field of nursing education, with evidence of this study, nursing educators prefers the nursing students to improve their knowledge which help to teach the early adolescent girls about Billig's exercise in order to achieve this objectives through conduction program like seminars, workshop have to be planned for students nurses. For a nurse administrator, to take an active part in arranging classes for staff nurses as well as for patients to get practice about Billig's exercise by improving the standards of nursing and research based clinical practice. The study can be replicated with a large sample for better generalization. A similar study can be conducted among adolescent girls having any other menstrual disorder.

CONCLUSION:

As Billig's Exercise does not show any side effect which is also highly effective to reduce the Dysmenorrhea and easily can do and it is very beneficial for all Early Adolescent Girls. This study findings show that the regular practice of Billig's Exercise helps to reduce the Dysmenorrhea among Early Adolescent Girls

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